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Suicide and Life-Threatening BEHAVIOR

ORIGINAL ARTICLE

Predictors of suicide coping self-efficacy among youth presenting to a psychiatric emergency department

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Abstract

Introduction: Low levels of youth-reported self-efficacy to cope with suicidal urges have been shown to prospectively predict repeat emergency department (ED) visits and suicide attempts, yet little is known about how self-efficacy may change following receipt of crisis services or about factors that may strengthen self-efficacy. Protective factors (e.g., parent-reported youth competence, parent-family connectedness, and receipt of mental health services) were examined in relation to self-efficacy at the time of a psychiatric ED visit and 2 weeks later.

Methods: Participants were 205 youth (ages 10–17), presenting to a psychiatric ED due to a suicide-related concern. Youth primarily identified as biological female (63%) and White (87%). Multivariate hierarchical linear regressions were used to examine candidate protective factors in relation to initial and follow-up suicide coping self-efficacy.

Results: Self-efficacy significantly improved in the 2 weeks following the ED visit. Parent-family connectedness was positively related to suicide coping self-efficacy at the time of the ED visit. Parent-family connectedness and receipt of inpatient psychiatric care following the ED visit were associated with higher follow-up suicide coping self-efficacy.

Conclusions: During the adolescent developmental period when suicidal thoughts and behaviors notably increase, study findings highlight potential malleable intervention targets, including parent-family connectedness, that may strengthen suicide coping self-efficacy.

KEYWORDS

connectedness, emergency department, self-efficacy, suicide ideation, youth

INTRODUCTION

As the second leading cause of death for youth ages 10–18, suicide continues to be an urgent public health concern (Centers for Disease Control and Prevention, 2021). In 2020 alone, over 2100 youth in this age group died by suicide. The COVID-19 pandemic has had a profound impact on youth wellbeing, culminating in the unprecedented declaration of a National State of Emergency in youth mental health (Office of the Surgeon General, 2021). Emergency department (ED) visits for youth presenting with suicide-related concerns and suicide attempts have increased considerably in recent years, especially among girls (Mercado et al., 2017; Yard et al., 2021), with recent data indicating that from 2016 to 2021, visits to EDs for self-injurious behaviors increased by over 150% for youth between the ages of 5 and 18 (Children's Hospital Association, 2022).

Care in ED settings should include suicide risk screening and assessment, safety planning, and treatment linkage (The Joint Commission, 2019). Safety plans identify personalized prevention strategies (e.g., distraction techniques, cognitive re-framing, personal and professional support seeking, lethal means restriction) that can be employed to reduce suicide risk in the presence of urges to self-harm (Finkelstein et al., 2022; Smith et al., 2022). Although safety planning is identified as a best practice brief intervention for working with youth at risk for suicide (Czyz et al., 2019; King et al., 2013), we know little about the extent to which youth engage in these recommended coping strategies, or about their perceived ability to use these strategies.

Enhancing individuals' ability to cope with suicidal thoughts and urges is a key intervention target with high-risk populations. Self-efficacy is an individual's perception of their ability to perform a task; the strength of one's self-efficacy is believed to impact capacity for behavioral change (Bandura, 1977). With respect to suicide prevention and utilization of safety plans, self-efficacy reflects an individual's perceived ability to sustain their own safety in the face of urges to self-harm. The construct of self-efficacy may provide important insights regarding the clinically significant transition from perception that a coping skill could be used in a crisis to applying that skill practically. This transition may be relevant when considering safety planning, as many youth report low levels of engagement with safety plans postsuicidal crisis (Klaus, 2011).

A measure of self-efficacy to cope with suicidal urges was developed to assess perceived confidence in one's ability to engage in coping strategies (e.g., distraction, thinking about reasons for living, support seeking) consistent with safety planning (Czyz, Horwitz, et al., 2016). Youth with more severe clinical histories (e.g., prior suicide attempts, prior nonsuicidal self-injury, more severe suicidal ideation) generally reported lower self-efficacy to cope with suicidal urges. Youth with lower self-efficacy at the time of an ED visit were more likely to experience follow-up suicide attempts and return ED visits. However, we know little about what factors contribute to self-efficacy, how self-efficacy itself may change over time, and the extent to which specific interventions (e.g., safety planning, cognitive behavior therapy [CBT], dialectical behavior therapy) improve coping self-efficacy among youth at risk for suicide.

Using different measurement strategies, prior studies have demonstrated a relationship between emotional self-efficacy (i.e., perceived ability to cope with challenging emotions) and suicidal ideation and behavior. A cross-sectional study of adolescents indicated that emotional self-efficacy was negatively related to suicidal thinking and behavior (Valois et al., 2015). Among a large sample of adolescents, the relationship between academic stress and suicide risk was moderated by self-efficacy to regulate emotions (Ying et al., 2020). Zeng et al. (2018) found, among a cross-sectional sample of graduate students, that the relationship between psychopathology symptoms (i.e., depression, trauma) and suicide risk (i.e., suicidal thinking and behavior) was mediated by self-efficacy to regulate emotions. Although not explicitly assessing self-efficacy to cope with suicidal urges, these studies suggest that higher confidence to manage challenging emotions, a common precursor to suicidal thoughts, may be protective.

Self-efficacy is understood as a dynamic construct that is influenced by a range of factors (Bandura, 1977; Tsang et al., 2012). Past performance, whether a mastery experience or an unsuccessful effort, is thought to shape beliefs, in a positive or negative direction, regarding one's abilities. Social factors that encompass vicarious learning (e.g., observation of others' successful performance) and encouragement from others may additionally strengthen an individual's own confidence to perform a task. Self-efficacy may also be influenced by one's physiological and affective states by way of impacting how an individual appraises a challenge and their ability to use the required skills to face that challenge. Finally, imaginal experiences or mental practice (e.g., imaginal exposures) are believed to enhance confidence in one's capacity to perform a task.

Psychosocial interventions for youth have been shown to positively impact self-efficacy. A recent review indicated that digital health interventions for youth with chronic medical conditions improved self-efficacy (Domhardt et al., 2021). Similarly, CBT, an evidence-based practice for a range of presenting concerns, has been observed to enhance youth self-efficacy to manage stressors (Hyun et al., 2005; Venkatesh Kumar & Sebastian, 2011). With relevance to adolescent suicide risk, supportive text messages intended to enhance coping and safety-plan use, delivered

for a month after psychiatric hospitalization, were associated with greater self-efficacy to refrain from suicidal action than safety planning alone (Czyz et al., 2021). If a goal of safety planning is to increase youth's capacity to engage in coping to maintain safety, instilling a sense of confidence to manage self-harm urges may be a particularly important intervention target. Although self-efficacy has been linked to clinical severity and adverse outcomes (Czyz, Horwitz, et al., 2016), there remains a gap in knowledge related to what factors contribute to greater self-efficacy beliefs to manage suicidal urges.

A range of clinical and theoretical factors may be relevant to understanding both youth suicide risk and the development of self-efficacy. Facets of social support (e.g., connectedness) have been established as key suicide protective factors (Arango et al., 2016; Czyz et al., 2012; Ewell Foster et al., 2017). Broadly, low connectedness to parents has been linked to a range of emotional and behavioral concerns (Ackard et al., 2006). It may be of critical importance for youth at risk for suicide to feel supported by their caregiver, and the emotional and instrumental support provided by caregivers may impact the youth's perceived self-efficacy to manage suicidal urges. The link between connectedness, self-efficacy, and suicide risk has also been documented. For example, among emerging adults, a general sense of self-efficacy partially mediated the relationship between family support and suicidal ideation cross-sectionally (Olatunji et al., 2020). Furthermore, connectedness is central to theories conceptualizing suicide risk (Klonsky & May, 2015; Van Orden et al., 2010) and families play a critical role in effective interventions for youth at risk for suicide (Glenn et al., 2019). Mastery experiences are crucial in influencing self-efficacy development (Bandura, 1977; Tsang et al., 2012), and youth social and instrumental competence (i.e., mastery in specified domains) has been linked to suicide ideation and behavior (King et al., 2001). Further, connection to mental health services (i.e., receipt of outpatient or inpatient psychiatric care) may provide an avenue for learning and practicing coping skills (e.g., relaxation, cognitive coping, support seeking) and this rehearsal may have implications for the development of self-efficacy.

The purpose of this study is to better understand the short-term course of self-efficacy following ED discharge as well as explore identifiable youth and family characteristics that relate to youth self-efficacy at the time of ED visit as well as in the 2 weeks following discharge, a time of increased suicide risk (Goldman-Mellor et al., 2019). This study's objectives were to: (1) examine changes in self-efficacy over the 2-week period following a suicide crisis; and (2) after controlling for markers of suicide risk severity associated with lower self-efficacy (i.e., suicidal ideation, suicide attempt history), examine protective factors (youth competence, parent-family connectedness, receipt of mental health care) that may be related to self-efficacy at the time of the ED visit and 2 weeks after discharge. We hypothesize that youth competence, parent-family connectedness, and receipt of care from an outpatient provider will be positively associated with baseline, as well as follow-up self-efficacy. Additionally, we hypothesize that receipt of inpatient psychiatric care will be positively linked to self-efficacy at the 2-week follow-up.

MATERIALS AND METHODS

Participants

Participants ($N = 205$) were 10- to 17-year-old youth ($M = 14.60$; SD = 1.85) presenting to a psychiatric ED with suicide-related chief complaints (e.g., suicidal ideation, suicidal behavior, nonsuicidal self-harm, depression). Parents reported chief complaints (i.e., primary reason for seeking ED services) as part of the ED triage process. The chief complaint inclusion criteria were defined broadly, and in collaboration with ED leadership, to capture the range of youth who are at risk for suicide and present to EDs (Ballard et al., 2017). Approximately 63% of youth ($n = 129$) identified as biological female, 33.2% ($n = 68$) as biological male, and 3.9% ($n = 8$) as transgender or gender nonconforming. Approximately 87% of youth identified as White ($n = 179$), 8.8% as Black ($n = 18$), 6.8% as "Other" ($n = 14$), and 6.3% as Hispanic or Latin American ($n = 13$).

Procedures

Youth presenting to the psychiatric ED were invited to participate in the study. Exclusion criteria included cognitive impairment, psychosis, intoxication, severe agitation, absence of legal parent or guardian, or being a non-English speaker. Families received standard care while in the ED (e.g., assessment of risk and individualized treatment recommendations, which could include hospitalization, discharge with safety planning, lethal means restriction counseling). After assent and consent procedures, youth and parents completed self-report measures. Participants were contacted 2 weeks after the ED visit to complete an online self-report survey via Qualtrics. Youth were provided with a $10 gift card as compensation for completing assessments (baseline, 2-week follow-up). Study data were collected as part of a phased project aimed at evaluating and improving ED services. Following an evaluation of ED services, ED staff were provided with in-service training, which included a review of best practices for crisis management

of youth in ED settings. This training occurred between phase one ($n = 87$; 42.4% of sample [*recruited June 2017 to March 2018*]) and phase two ($n = 118$; 57.6% of sample [*recruited September 2018 to February 2020*]) of data collection. Participant demographic and clinical characteristics did not significantly differ by phase ($p > 0.05$). Approximately 57% of participants were retained at the 2-week follow-up ($n = 117$). Retention analyses indicated that youth who reported working with a mental health provider at baseline were more likely to complete the follow-up assessment ($p = 0.004$). Other clinical and demographic characteristics were unrelated to retention ($p > 0.05$). The study protocol was institutional review board approved.

Measures

Self-efficacy

Youth self-efficacy to cope with suicidal thoughts and urges was measured using the 12-item *Efficacy to Cope with Suicidal Thoughts and Urges Scale* (Czyz, Horwitz, et al., 2016). Youth used an 11-point scale ("not at all confident" to "completely confident") to respond to items assessing their anticipated confidence to engage in coping behaviors in the presence of suicidal thoughts or urges. Sample items include "Find ways to distract myself, such as with different thoughts or activities" and "Tell a family member about it." In a previous sample, this measure had high internal consistency and predictive validity (Czyz, Horwitz, et al., 2016). This measure was administered at the baseline and 2-week follow-up assessment. At the 2-week follow-up assessment, due to a clerical error, only 11 of the 12 items were administered. Thus, the baseline assessment of self-efficacy is based on the full 12-item scale, while the follow-up assessment of self-efficacy is based on 11 items. Cronbach's alpha was 0.89 and 0.91 for the baseline and follow-up assessments, respectively.

Suicidal ideation

Suicidal ideation severity at the baseline assessment was measured using the 15-item *Suicidal Ideation Questionnaire-Junior* (Reynolds & Mazza, 1999). Youth used a 7-point scale ("I never had this thought" to "Almost every day") to answer items such as "I wished I were dead" and "I thought it would be better if I was not alive." The SIQ-Jr has demonstrated strong reliability and validity (Reynolds & Mazza, 1999). Cronbach's alpha in this sample was 0.94.

Suicide attempt

Suicide attempt history at the time of the ED visit (i.e., baseline) was assessed using the *Columbia-Suicide Severity Rating Scale* (C-SSRS, Posner et al., 2011). This semi-structured interview was administered as part of the ED clinical protocol by a medical provider and was obtained by the research team through a medical record review.

Parent-Family connectedness

Parent-family connectedness was measured at the baseline and 2-week follow-up assessment using the 13-item *Parent-Family Connectedness Scale* (Resnick et al., 1997). Youth used a 5-point scale ("Not at all/Strongly disagree/Not close at all" to "Very much/Strongly agree/Extremely close") to respond to items such as "How much do people in your family understand you?" and "Overall, you are pleased with your relationship with your father/mother." This measure has demonstrated good reliability and adequate internal consistency (Resnick et al., 1997; Sieving et al., 2001). Cronbach's alpha in this sample was 0.89 at baseline.

Youth competence

Youth competence was measured at the baseline assessment using 7 items of the parent-reported Child Behavior Checklist (CBCL 6/18), which assesses adaptive functioning across activity, social, and school domains (Achenbach, 2001). Sample items include "About how many close friends does your child have?" and "Has your child had any academic or other problems in school?" CBCLs were scored using the Achenbach System of Empirically Based Assessment Software. A total competence score (sum of raw scores of activity, social, and school competency domains) was used in analyses.

Receipt of mental health services

Receipt of outpatient mental health services (therapy and/or psychiatric provider) at the time of recruitment (i.e., connection to outpatient provider was established prior to seeking ED services) was assessed through medical record review. Receipt of inpatient psychiatric services as a result of the ED visit (vs. discharge to outpatient or partial hospitalization program) was also assessed through a medical record review.

DATA ANALYSIS PLAN

Descriptive statistics (means, standard deviations, frequencies, percentages) were calculated for primary study variables at the baseline and follow-up assessments. Paired-sample *t*-tests were used to examine changes in self-efficacy across time. We examined bivariate relationships between baseline primary study variables and youth suicide coping self-efficacy at baseline and follow-up using Pearson correlations.

We used two hierarchical linear regressions to first examine factors associated with baseline suicide coping self-efficacy and, in the second model, follow-up suicide coping self-efficacy (measured 2 weeks after the ED visit). In both models, Step 1 controlled for study phase and included known suicide risk markers related to youth self-efficacy (Czyz, Horwitz, et al., 2016), namely baseline suicidal ideation severity and lifetime suicide attempt history (yes/no). Step 2 included factors hypothesized to be positively related to greater self-efficacy: baseline parent-family connectedness, baseline youth competence (reported by parent), and receipt of mental health services. In the cross-sectional model, receipt of mental services was defined as having established care with an outpatient mental health provider (i.e., psychiatric or therapy provider vs. no care) at the time of the ED visit (yes/no). In the prospective model, receipt of mental health services included both having established care with an outpatient mental health provider at the time of the ED visit (due to its differential impact on retention), as well as receipt of inpatient psychiatric care vs. outpatient or partial hospitalization care following the ED visit (yes/no). The prospective model controlled for baseline self-efficacy. Continuous predictor variables were centered for interpretability. Models were analyzed using SPSS version 28.

RESULTS

Youth clinical characteristics

Descriptive statistics and correlations are provided in Table 1. Relationships examined were generally in expected directions. At baseline, 31.7% of youth had a lifetime suicide attempt history ($n = 65$), with 10.7% ($n = 22$) reporting a history of multiple suicide attempts. Approximately, 59% ($n = 122$) of youth had a lifetime history of nonsuicidal self-harm (NSSI). Additionally, 45.8% ($n = 94$) of youth had been seen in an ED for a mental health concern in the past. Most youth ($n = 147$; 71.7%) reported established care with an outpatient provider (therapy and/or psychiatric care) at baseline. Approximately 53% of youth received inpatient psychiatric care as a result of the ED visit ($n = 109$).

Changes in self-efficacy in the 2 weeks following ED visit

Changes in self-efficacy between the baseline and the follow-up assessment are presented by item in Table 2. There was a significant increase in youth self-efficacy as related to the following suicide coping strategies: distraction; relaxation; thinking about reasons for living; sharing risk status with a family member, friend/support person, or mental health provider; challenging the thought that suicide is the only way to cope; removing things that could be used to self-harm; calling the crisis/suicide hotline; and going to the ED in the presence of suicidal urges ($p < 0.001$). There was no significant change in youth's self-efficacy to avoid substances in the presence of suicidal urges ($p = 0.585$). There was also a significant increase in

TABLE 1 Correlations between self-efficacy and youth characteristics.

	No. (%)	1	2	3	4	5	6	7
Baseline								
1. Lifetime suicide attempt	65 (31.7)	–						
2. Receipt of outpatient mental services	147 (71.7)	0.02	–					
3. Receipt of inpatient psychiatric care	109 (53.1)	0.20*	0.09	–				
	M (SD)							
4. Self-efficacy	59.97 (26.1)	−0.26*	−0.14*	−0.30*	–			
5. Suicidal ideation severity	49.87 (23.2)	0.29*	0.18*	0.24*	−0.57*	–		
6. Parent-family connectedness	37.83 (9.91)	−0.13	−0.01	−0.17*	0.48*	−0.29*	–	
7. Total competence	18.02 (5.05)	−0.08	0.05	−0.12	0.03	0.02	0.10	–
Follow-up								
8. Self-efficacy	72.79 (24.23)	−0.20*	−0.08	0.05	0.37*	−0.20*	0.35*	0.11

Note: $n = 117$–205. Self-efficacy at follow-up is missing one item.

*$p < 0.05$.

TABLE 2 Self-efficacy at baseline and follow-up.

When I have suicidal thoughts or urges, I can…	Baseline	Follow-up		
Coping strategy	***M* (SD)**	***M* (SD)**	***t***	***p***
Distraction	5.38 (2.96)	7.36 (2.44)	−6.45	<0.001
Calm or comforting activity	5.76 (2.93)	7.30 (2.58)	−4.86	<0.001
Remind of reasons for living	4.42 (3.19)	6.64 (2.89)	−7.20	<0.001
Tell a family member	4.01 (3.63)	5.96 (3.40)	−5.82	<0.001
Tell friend or support person	5.38 (3.18)	6.79 (3.24)	−4.38	<0.001
Tell mental health provider	5.16 (3.36)	6.38 (3.22)	−3.50	<0.001
Avoid substance use	7.53 (3.47)	7.68 (3.01)	−0.55	0.585
Challenge that suicide is the only way to cope	5.05 (3.15)	6.57 (2.75)	−4.45	<0.001
Remove things I could use to hurt myself	4.62 (3.72)	6.48 (3.35)	−4.95	<0.001
Call crisis/suicide hotline	3.31 (3.47)	5.31 (3.54)	−5.74	<0.001
Go to ED	4.79 (3.55)	6.33 (3.15)	−4.82	<0.001
Total self-efficacy	55.37 (24.61)[a]	72.79 (24.23)	−6.88	<0.001

Note: $n = 116–117$. Youth responded using an 11-point scale ("not at all confident" to "completely confident").

[a]Excluding one item for comparability.

TABLE 3 Linear regression predicting baseline self-efficacy.

	Step 1			Step 2		
	β	***p***	R^2	***β***	***p***	$R^2\Delta$
Suicide attempt history	−0.09	0.133	0.362	−0.07	0.199	0.097
Suicidal ideation severity	−0.56	<0.001		−0.46	<0.001	
Parent-family connectedness	–	–		0.33	<0.001	
Total competence	–	–		−0.01	0.917	
Baseline outpatient mental health services	–	–		−0.01	0.844	

Note: Model controls for study phase in Step 1.

TABLE 4 Linear regression predicting follow-up self-efficacy.

	Step 1			Step 2		
	β	***p***	R^2	***β***	***p***	$R^2\Delta$
Baseline self-efficacy	0.35	0.002	0.145	0.29	0.019	0.081
Suicide attempt history	−0.09	0.343		−0.09	0.348	
Suicidal ideation severity	0.02	0.834		−0.01	0.954	
Parent-family connectedness	–	–		0.20	0.042	
Total competence	–	–		0.10	0.269	
Receipt of inpatient psychiatric care	–	–		0.21	0.025	

Note: Model controls for study phase and baseline outpatient mental health services (due to differential impact on retention) in Step 1.

overall self-efficacy, across strategies examined, from baseline to the follow-up assessment ($p < 0.001$).

Factors related to baseline suicide coping self-efficacy

Table 3 depicts the results of the model examining factors related to suicide coping self-efficacy at the time of ED visit. Baseline suicide ideation severity was negatively related to baseline suicide coping self-efficacy, while parent-family connectedness was positively related to baseline suicide coping self-efficacy ($p < 0.001$). Lifetime suicide attempt history, youth overall competence, and established outpatient mental health services at baseline were not related to suicide coping self-efficacy at the time of ED visit ($p > 0.05$). Study phase was unrelated to suicide coping self-efficacy at baseline ($p > 0.05$).

Predictors of suicide coping self-efficacy 2 weeks after the ED visit

Table 4 depicts the results of the model predicting suicide coping self-efficacy 2 weeks following the index ED visit. Baseline self-efficacy, parent-family connectedness, and receipt of inpatient psychiatric care as a result of the ED visit were positively related to follow-up suicide coping self-efficacy ($p < 0.05$). Lifetime suicide attempt history, established outpatient mental health care at baseline, baseline suicidal ideation severity, and youth overall competence were not related to follow-up suicide coping self-efficacy ($p > 0.05$). Study phase was unrelated to suicide coping self-efficacy at follow-up ($p > 0.05$).

DISCUSSION

Among youth at high risk for suicide presenting to a psychiatric ED, we examined changes in self-efficacy to manage suicidal urges, as well as factors hypothesized to be associated with self-efficacy at the time of the ED visit and in the 2 weeks following discharge. Youth self-efficacy to maintain safety generally increased across time. Parent-family connectedness was associated with higher self-efficacy at the time of the ED visit and 2 weeks following ED care, a particularly high-risk time for youth (Goldman-Mellor et al., 2019). Youth who received inpatient psychiatric services as a result of the ED visit reported higher self-efficacy at follow-up, relative to youth who were referred to less intensive care (i.e., outpatient and partial hospitalization services). Moreover, our finding that suicidal ideation severity was related to self-efficacy cross-sectionally is in line with previous research indicating that the severity of clinical history is related to lower suicide coping self-efficacy (Czyz, Horwitz, et al., 2016).

This is, to our knowledge, the first study to examine changes in suicide-specific self-efficacy immediately following receipt of crisis services. Self-efficacy was measured by assessing youth's confidence to engage in a range of coping strategies (e.g., relaxation, distraction, seeking support; Czyz, Horwitz, et al., 2016) that are typically recommended as part of safety planning interventions (Stanley & Brown, 2012). At the ED visit, most youth reported feeling moderately confident in their ability to manage suicidal urges, using a variety of strategies. Confidence significantly increased by the 2-week follow-up, and youth reported generally feeling moderately-to-highly confident at that time. It may be that once the suicidal crisis resulting in the ED visit abated, adolescents returned to their typical level of self-efficacy (i.e., regression to mean); however, it is also possible that the receipt of ED care or support thereafter mobilized by the ED visit influenced the increase in self-reported confidence to manage suicidal urges. Future research should investigate the extent to which crisis services impact patient attitudes or behaviors that may serve to maintain safety.

Safety plans, including personalized coping strategies, are a recommended intervention for individuals at high risk for suicide (The Joint Commission, 2019) and a standard practice at the recruitment site. In this academic medical center setting, youth's caregivers are typically discharged with recommendations including talking to their child about their safety plan and encouraging their child's use of coping skills (Ewell Foster et al., 2022). The collaborative development of a safety-plan and parental reinforcement of coping strategies may provide opportunities for youth to consider, discuss, and rehearse suggested coping strategies, which may contribute to the observed increase in self-efficacy. Given research indicating poor youth engagement with safety plans following a suicidal crisis (Klaus, 2011), additional research clarifying how to enhance youth utilization of safety-plan strategies postcrisis is warranted.

Parent-family connectedness was the only protective factor related to self-efficacy both cross-sectionally and prospectively. Theory (Klonsky & May, 2015; Van Orden et al., 2010) and previous research (Arango et al., 2016; Czyz et al., 2012; Ewell Foster et al., 2017) highlight the importance of connectedness to our understanding of youth suicide risk. Moreover, theoretical perspectives on the development of self-efficacy indicate that social factors, including encouragement from others, may increase an individual's confidence in their ability to perform a task (Bandura, 1977; Tsang et al., 2012). Findings are in line with a previous study indicating that self-efficacy partially mediated the relationship between family support and suicidal ideation (Olatunji et al., 2020). Youth who feel connected to their parents may feel more comfortable turning to them when in need of support, which may, in turn, positively impact the youth's belief in their own abilities to sustain safety. Further, the link between parent-family connectedness and self-efficacy may provide insights into previously documented relationships between family involvement and outcomes for youth at elevated risk for suicide (Ougrin et al., 2015). Notably, our measure of parent-family connectedness captures the youth's perception of the quality of the caregiver-youth relationship (e.g., "Overall, you are pleased with your relationship with your father/mother"). The quality of the caregiver-youth relationship may provide a foundation for both youth and parental self-efficacy. The dynamic relationship between youth and parental self-efficacy, especially as it relates to a youth's ability to maintain safety, should be evaluated further.

Family involvement is a key component of effective interventions for youth at risk for suicide (Glenn

et al., 2019). For example, an ED-based intervention for adolescents at risk for suicide (Safe Alternatives for Teens and Youth), involving parents and focused on building family support, was related to reductions in suicidal behavior (Asarnow et al., 2015). A program for youth with interpersonal problems has been shown to positively impact youth's sense of social connectedness (King et al., 2021), indicating that connectedness is a malleable intervention target. The ED setting presents a unique opportunity to assess connectedness, and brief interventions that strengthen family relationships should be considered in this setting. Additionally, results suggest that is important to evaluate the family dynamic when youth present with a suicidal crisis, as well as the parents' capacity to support their youth post-ED discharge (Ewell Foster et al., 2021).

We found that receipt of inpatient psychiatric care was related to higher self-efficacy 2 weeks following the ED visit. This finding requires replication given equivocal findings on the benefits of hospitalization (Ward-Ciesielski & Rizvi, 2021). It may be that inpatient care provides more opportunities for rehearsal of coping strategies, and this may positively impact youths' perceptions of their ability to use practiced strategies. Given that the time after receipt of emergency care is a time when the suicide risk is heightened (Goldman-Mellor et al., 2019), and that suicide coping self-efficacy has been linked prospectively to suicide attempts and return ED visits postpsychiatric ED care (Czyz, Horwitz, et al., 2016), building self-efficacy during a psychiatric inpatient stay may be an important goal of the treatment milieu and a possible metric of therapeutic benefit.

Notably, many of the youth in this sample were hospitalized in an academic medical center inpatient unit that uses evidence-based treatment protocols; although more research is needed, these findings provide some preliminary evidence that an inpatient stay, if used to provide focused care as opposed to just a holding environment, may result in benefits such as changes in self-efficacy for safety. Although it is unique to examine self-efficacy within this brief interval post-ED visit, the short window of follow-up does not allow examination of the longitudinal course of self-efficacy and whether this is differentially impacted by factors such as hospitalization. Nevertheless, this link offers some indication that intensive crisis services, collaborative treatment planning, and stabilization for adolescents at risk for suicide may bolster self-efficacy in the short term. Future studies should consider the variability across psychiatric inpatient services in the community (i.e., length of stay, type of programming, extent of family involvement) and how these factors may impact youth self-efficacy post a psychiatric crisis.

This study should be viewed in the context of previous research indicating that hospitalizations have either no impact or a negative impact on subsequent suicidal ideation and attempts (Czyz, Berona, & King, 2016; Ward-Ciesielski & Rizvi, 2021). Thus, it is important to consider alternative explanations for our finding that receipt of inpatient psychiatric care was related to higher self-efficacy. Notably, and perhaps not surprisingly, there was a negative bivariate relationship between baseline self-efficacy and receipt of inpatient psychiatric care. Specifically, youth who presented to the ED with lower rates of self-efficacy were more likely to be hospitalized. Even though we controlled for baseline self-efficacy in our prospective model, this difference may indicate that the change in self-efficacy across time represents a regression to the specific group mean for psychiatrically hospitalized youth. Another possible explanation is that a social response bias or cognitive dissonance may be influencing youth's self-report of self-efficacy. Previous research among youth indicates that social desirability is negatively related to reporting psychiatric concerns (Miotto & Preti, 2008). Youth may be trying to "make sense" of their hospitalization experience or trying to avoid a return to the hospital by endorsing more confidence in their coping skills. Of note, youth were aware that their survey responses were private and would not influence care decisions. Additional research is warranted to better understand and disentangle these relationships.

Despite the hypothesis that having established outpatient mental health services at the time of the ED visit would result in higher self-efficacy, this was not observed. Notably, most youth were receiving some form of outpatient mental health services at the time of the ED visit (71.7%), and this may have impacted our ability to distinguish differences between youth who were and were not connected to services. It may also be that our measurement approach did not sufficiently capture the nature, intensity, or quality of services received, which may be more important than whether or not a youth is connected to care. It is also possible that the measurement of self-efficacy during the crisis that brought the youth to the ED may be a "moment in time" measurement that does not reflect the value of previous therapeutic efforts to bolster coping. Future work should examine how specific intervention factors (e.g., type, quality, frequency, duration) impact the development of youth self-efficacy.

Parent-reported competence across domains of adolescents' adaptive functioning (activity, social, school) was also unrelated to self-efficacy, even at the univariate level. This was an unexpected finding, as a theory of the development of self-efficacy beliefs points to the critical role of mastery experiences. We expected that youth who were functioning with more competency in their lives would

report more confidence in their coping abilities. Previous work has indicated discrepancies between youth- and parent-reported competence among a sample of youth with depression symptoms and risk for suicide (Mbekou et al., 2015). Thus, it may be that parent-report did not reflect youths' own views of their mastery. It may also be that suicide coping self-efficacy is more aligned with the experience of managing one's own suicide risk, rather than more general indices of functioning (i.e., discriminant validity). Future research should explore the extent to which informant or particular mastery domains are related to suicide coping self-efficacy. Moreover, psychiatrically hospitalized adolescents' reports of suicidal ideation, plans, and attempts are significantly higher than their parents' reports (Klaus et al., 2009). This points to a mismatch between parent perception of youth wellbeing and youths' experiences of their mental health. It may be that some youth who are struggling to feel confident in their abilities to maintain safety are perceived as doing well across other domains by parents. Identifying and intervening with this subgroup is an important future direction.

Findings should be considered in the context of study limitations. First, youth were recruited from a single academic medical center psychiatric ED, and most participants identified as biological female and White. Sample characteristics limit generalizability and additional work using diverse samples and community settings is warranted. Study attrition also presents a limitation. Notably, data were collected as part of a quality improvement evaluation and as such completion of follow-up surveys could not be highly incentivized. Additional investigation into the development of self-efficacy, with longitudinal data, especially at a longer-term outcome or with more frequent assessment (e.g., ecological momentary assessments) is warranted. It is important to note that due to the nature of recruitment, we only included youth who presented to the ED with a parent/guardian. Given the relationship between parent-family connectedness and self-efficacy to cope with suicidal urges, it will be important for future research to explore self-efficacy among youth presenting without a caregiver or whose caregiver may be apprehensive to engage in research.

This study builds on the limited literature focused on youth self-efficacy, specifically in the context of managing suicidal thoughts and urges. Using a short-term prospective sample of youth presenting to a psychiatric ED, we observed a general increase in suicide coping self-efficacy. Moreover, results highlight the importance of parent-family connectedness to self-efficacy, as well as the potential impact of discharge recommendations following receipt of emergency services. Study findings significantly contribute to our understanding of youths' perceived ability to apply frequently recommended safety planning strategies (e.g., relaxation, distraction, seeking support) and, thus, have implications for the development of interventions for youth at elevated risk for suicide.

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CONFLICT OF INTEREST STATEMENT

The authors have no conflicts of interest to disclose.

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